Educational and Public Information Comics, 1940s–present

Murray, Chris; Nabizadeh, Golnar

Published in:
Studies in Comics

DOI:
10.1386/stic_00013_1

Publication date:
2020

Document Version
Peer reviewed version

Educational and Public Information Comics, 1940s–present

Christopher Murray and Golnar Nabizadeh

For as long as there have been comics, they have fulfilled an educational purpose (Jungst 2010). Comics, like any medium, can be used to share experiences and knowledge, but in some cases, this is more targeted, with comics being employed to supplement traditional educational resources. This has led to comics being studied in educational settings (Sellow 2019) or being used to meet a specific informational need, as part of a public information campaign (Murray 2010). Educational comics have often been employed in a documentary mode (Mickwitz 2016; Chute 2016), detailing historical events or the lives of historical figures, but they can also serve as a means of science communication or adapt literature into comics (Tabachnick and Saltzman 2015). Indeed, almost any topic that might be imagined can be turned into a comic. This article examines the history of educational and information comics, particularly in America, although other contexts are mentioned, such as Britain and, briefly, Japan. It also explores the scholarly and theoretical frameworks that have been employed to appraise educational comics, with an emphasis on the work presented in a Special Issue of *The Journal of Educational Sociology* in 1944, which explored the educational potential of comics. Of particular interest is the work of Lauretta Bender, which appears in that issue, as well as British researchers, such as Sister Jude. In comparing research on the educational and informational potential of comics from the 1940s and 1950s with current comics scholarship, this article observes that the educational and instructive potential of comics has long been recognized and that work on the educational potential of comics was being done long before the formation of what has come to be termed comics studies and argues that the utility of comics as a mode of pedagogy is not simply a function of their content but also resides at the level of form and style.

This is the author accepted version of the following article: Murry, C. & Nabizadeh, G. (2020) 'Educational and Public Information Comics, 1940s–present', *Studies in Comics*, vol. 11, no. 1, pp. 7-35.

Educational and public information comics – A brief history

Comics have often been at the nexus of debates around the supposed distinction between high and low culture and the fear of the influence of mass culture more generally. In the late nineteenth and early twentieth centuries, the recurring criticism directed towards comics mirrored that directed towards the penny dreadfuls and bloods a generation before – that these materials were detrimental to the literacy and moral well-being of young readers (Murray 2017: 24–38). That thought had a travelling companion – comics and story papers that attracted a young readership were supposed to be educational. This was deemed to be their responsibility whether they accepted it or not. While the rise of hugely popular and sophisticated newspaper strips in America brought new respectability to the medium in the post-war years, by the 1930s, the comic book was again attracting criticism (Heer and Worcester 2005: x). In America, the 1940s saw a number of public attacks on comics, and in the mid-1950s, the campaign against the comics led by Fredric Wertham resulted in Senate hearings. In Britain, anxiety about supposedly vulgar American comics being imported and reprinted led to restrictive legislation – the Children and Young Persons (Harmful Publications) Act 1955 – being passed into law. This came after a campaign led by parents' groups, Church leaders, educators and the British Communist party (Barker 1992). This was telling. The objections to youth culture as detrimental to education usually have little to do with a concern for education standards, but rather point to a fear that they might educate readers about their political circumstances, and perhaps even encourage radical political sentiments. As had been the case with the outcry over penny bloods, the fear that comics might promote dissent among the young and the working classes has always been stronger than the fear that they might result in poor grammar (Murray 2017). The history of educational comics is therefore underpinned by several considerations and assumptions. Firstly, the tacit acknowledgment that, for good or ill, the medium has a power of persuasion and is able to engage readers in a particularly effective way. Secondly, given this, it is often deemed incumbent upon creators and publishers to use comics as a force for social good and to educate young people appropriately, rather than 'merely' serving entertainment purposes. These ideas have had a huge sway on the producers of educational and information comics over the years.

One of the first examples of an American comic being mass produced for educational purposes came in 1928 with the comic *Texas History Movies*, a strip that told the history of Texas and was distributed to schoolchildren between 1928 and the late 1950s. The next comic with an explicitly educational aim came in the form of *True Comics,* which was launched by The Parents' Institute in 1941, publisher of the influential Parent's Magazine (Figure 1). Its founder, publisher George J. Hecht, wanted to provide an alternative to the adventure and crime comics that were popular at the time. Sterling North, the Literary Editor of the *Chicago Daily News*, had recently attacked the comics industry on the basis that they were, in his words, a 'national disgrace' and a 'poisonous mushroom growth' (Wright 2001: 27). Hecht saw the value in an educational line of comics that steered away from sensation and adventure. As Hecht noted in his introduction to *True Comics* #1, '[t]ruth is stranger and a thousand times more interesting than fiction!'. Hecht's aim was to meet the challenge that comics were a bad influence on children by offering comics that were a good influence. Like some other publishers at the time, including Educational Comics, and later Fawcett and DC Comics, The Parents' Institute sought the guidance of an advisory group that included educators and academics (several of whom contributed to *The Journal of Educational Sociology's* Special Issue on comics in 1944). Comics were under attack and the publishers of superhero and adventure comics sought protection and legitimacy through these measures. In many ways, *True Comics* was marketed to parents to buy for their children, and this worked. Sales were strong, even though educational comics generally held less appeal to young readers, as evidenced when DC Comics tried to emulate True Comics with their own title, *Real Fact Comics,* which was launched in 1946 and struggled before being cancelled in 1949. In general, most mainstream publishers (certainly in America and Britain) preferred to include educational material within the comics as features rather than producing dedicated education comics (Wright 2001: 61). This allowed them to placate objectors while also giving the readers what they really wanted. However, as with True Comics, there were a number of notable exceptions.

In 1942, M. C. Gaines, a former school principal turned publisher, and the person most often credited as the inventor of the comic book format in America, began

producing a range of educational comics under an arrangement with DC Comics. When he split with DC Gaines formed his own company, Educational Comics, or E. C. Comics as it became known. Here, he reprinted and continued the comics that he had started with DC. Later, under the direction of Gaines' son, Bill Gaines, E. C. changed its name to Entertaining Comics and produced a range of successful but controversial crime and horror comics that became embroiled in the national panic about the negative effects of comics on children led by Wertham and culminating in the aforementioned Senate hearings and self-imposed industry regulation in the mid-1950s (Wright 2001: 135). But in the 1940s, Gaines was publishing the likes *of Picture Stories from The Bible*, *Picture Stories from World History* and *Picture Stories from Science* (Figure 2). As Sidonie Matsner Gruenberg noted in *The Journal of Educational Sociology*, 'Picture Stories from the Bible […] present[ed] the entire Old Testament told chronologically, under an advisory council of distinguished educators and church leaders of various denominations' (Gruenberg 1944: 211). Harvey Zorbaugh, chairman of the Department of Educational Sociology of the New York University School of Education, wrote in the same issue of *The Journal of Educational Sociology* that comics had already entered the world of education by the mid-1940s.

> [Comics] have invaded campus and classroom. 'Sadie Hawkins Day' is celebrated at 500 schools and colleges. In more than 2,500 classrooms children are learning to read from 'Superman' workbooks. The comics are teaching French, Spanish, and the social studies. Ivanhoe, and other classics, over which our generation pored late into the night, are now reduced to comic form. The Chicago Museum of Natural History's 'Joe the Elk' teaches paleontology and anthropology. 'Private Pete' and his colleagues are playing a major role in the educational program of the armed forces. Even the Sunday school is not exempt. In some 2,000 Sunday schools children are studying 'Picture Stories of the Bible'. (Zorbaugh 1944: 202)

The language of this statement is ambivalent. While the overall message is that comics are being utilized in many educational contexts, the use of the terms 'invaded' and 'reduced', and the suggestion that not even Sunday Schools are exempt, puts comics in a negative light. However, Zorbaugh and Gruenberg, along with Paul A. Witty (Professor

of Education at Northwestern University), were among a handful of academics and educators exploring the psychological and educational aspects of the comics in the 1940s. In general, they presented the view that comics, far from being harmful, were a powerful way to engage children and especially reluctant readers. As Zorbaugh records, some American educators were working with publishers like DC Comics to produce educational materials featuring comics characters. Moreover, commercial partners and government agencies were well aware that comics were more visually appealing that other forms of public engagement, such as a pamphlet, and convincingly outperformed them (Gruenberg 1944: 212). The form and style of the presentation of such comics is likely to have been a determining factor. The comics were often colourful, with a visual narrative style that was dynamic and appealing but also easy to follow. Also, as work on the formal aspects of comics has shown, the medium encourages readers to engage in the narratives as comics present the readers with a puzzle. Reading comics requires the reader to use their imagination to complete the narrative based on a relatively economical presentation of information (McLuhan 1964; McCloud 1993). In this sense, reading a comic requires the reader to figure out the meaning based on textual and visual cues, encouraging what Dale Jacobs refers to as multimodal literacy (2013). McLuhan noted that 'the comic strip […] belong[s] to the world of games, to the world of models and extensions of situations elsewhere' (McLuhan 1964: 169). Reading comics is therefore inherently a process of discovery and learning, and this is compounded when comics address educational themes or have an informational intent.

During the war, the US military employed comics creators to produce instructional comics, having found the medium to be highly successful in communicating clear directions for training purposes, especially in the operation and maintenance of military equipment. Indeed, one of the most prominent comics creators of the time, Will Eisner, created a vast array of such instructional cartoon strips and illustrations for the Army, as did many others. Eisner's work appeared in Army Motors during the war and *PS Magazine*, which he produced for the Army from 1951 to 1971. As Richard L. Graham recounts in *Government Issue: Comics for the People, 1940s–2000s* (2011), the American government was a major publisher of information comics. He notes that,

> although the U.S. Department of Defense was responsible for a majority of the comics produced by the federal government, many other departments and agencies utilised the comics medium, from the Social Security Administration to the U.S. Postal Service. The Government Printing Office published many of the comic books, but Harvey, Marvel, DC Comics, and even corporations produced, distributed, and marketed government comics as subcontractors and sponsors. (Graham 2011: 11)

Many government information comics sought to impart civics lessons as well as offering practical instruction. They were a means of reminding the public of their responsibilities and were distributed in huge numbers at schools, public events and through newspapers. Many of these comics featured appealing and memorable characters in the form of lovable buffoons or anthropomorphic talking animal characters, engaging readers through a persuasive combination of entertainment and instruction. Eisner went on to write books outlining the formal operation of the comics medium, including *Comics and Sequential Art* (1985), the foreword of which contains a call for a greater regard for the medium among educators (1985: 5), and as he notes 'the format of the comic book presents a montage of both word and image […] and the reading of the comic book is an act of both aesthetic perception and intellectual pursuit' (1985: 8).The intellectual pursuit is not simply a matter of comprehending the content but appreciating the multimodality of the form, the montage of word and image as he terms it, and, as McLuhan and McCloud also argue, applying critical skills and imaginative interpolation of the occluded elements (that which is implied to exist beyond the frame).

With Hecht and Gaines' educational comics proving to be hugely successful, and the government producing a range of information comics, other educational comics started to appear, and a popular sub-genre of educational comics soon emerged – adaptations from literature. Most notable was the long-running Classics Illustrated series published by Albert Kanter's Gilberton Company Inc. from 1941 to 1971. This American series became hugely successful and was reprinted all around the world. Indeed, these have been revivals of the series since the 1970s, and the comics remain in print. Kanter

founded Gilberton in 1941 and set about publishing a series called Classic Comics, which changed its name to Classics Illustrated in 1947 (Figure 3). Kanter's aim was to give children the opportunity to encounter great works of literature in an accessible and appealing form, which he hoped would improve their literacy and inspire them to read more widely (Jones 2011). To this end, the comics often contained short essays, and the stories usually concluded with a caption that said 'Now that you have read the Classics Illustrated edition, don't miss the added enjoyment of reading the original, obtainable at your school or public library'. The comics were intended to benefit young readers who might be daunted by a literary classic, or else, readers for whom English was not their first language. William B. Jones Jr., author of a study of Classics Illustrated, argues that they 'established a literary canon for its young readership that to some degree mirrored the canon endorsed by high school and college English departments' (Jones 2011: 137). The stylistic and formal elements of Classics Illustrated comics played an important part in their success. The artwork rarely privileged expressive style or formal experimentation over clarity (though there were exception). This somewhat restrained style gave the comics the appearance of being educational, rather than exciting and dynamic. In 1951, the series shifted to painted covers, which made the comics appear more sophisticated and conjured associations with the covers of paperback novel covers or movie posters (Jones 2011: 112). Given the success of Classics Illustrated, it was inevitable that several other publishers would seek to emulate their formula. Amalgamated Press published Thriller Comics in the UK, with its "Told in Pictures" series appearing in the early 1950s and running for an impressive 450 issues, ending in 1963. They employed the same prestige appearance as Classics Illustrated, with painted covers, but the interiors were black and white. Also published in the UK was the twelve issues series A Classic in Pictures which appeared in the early 1950s.

The success of *Educational Comics, True Comics*, and Classics Illustrated led to a rise in educational comics in the United States in the post-war years, but many of these did not attempt to compete with entertainment comics. In 1948, Will Eisner founded American Visuals, a company dedicated to producing comic art for commercial purposes (Campbell 2011: 11). Perhaps, the most successful publisher of such comics was

Malcolm Ater, who had worked briefly for Educational Comics and went on to create his own company, Commercial Comics. Ater astutely spotted that the government and large companies would pay to have comics created that could communicate messages to the public. In 1947, Ater's first comic *The History of Gas* was produced for the American Gas Association and featured Miss Flame, who became a long-standing gas industry trademark (Figure 4). Ater found considerable success, as the federal government and big business would pay for huge print runs. Politicians even commissioned Ater to produce comics as part of their campaigns, and this was a highly lucrative market. In the 1980s, Ater even produced comics for the CIA, which were airdropped over Grenada, as well as an AIDS public information comic commissioned by pop star Madonna to be given away at her concerts (Rifas 2010; Sorene 2016).

The instructional and political use of comics by Ater was partly a continuation of the use of comics for informational and propaganda purposes during the war (Murray 2010). Many American comics in the 1950s and 1960s sought to educate readers about electricity, atomic energy and aviation, to name just a few themes. In many cases, such comics were funded by companies like General Electric. In fact, GE had a comics series called *Adventures in Science* that was run by their public relations department (which was sometimes referred to as the Educational Relations Department). These comics were produced in the context of the Cold War, and the American government and industry wanted to maintain a competitive edge by inspiring a new generation of scientists and engineers to enter these industries (Figures 5 and 6). Like Classics Illustrated, these comics placed a high premium on clarity of style. The comics also promoted an idealized view of American life. Information comics were also created by the government and distributed to the public. Some, such as *If an A Bomb Falls* (1951), issued by State of Georgia Department of Defense, and Ater's *The H Bomb* and You (1955), dealt with the threat of atomic war, offering information about what to do in the event of an attack (Figure 7). In comics such as these, the calm authoritative tone of the narration and the equally sedate clear style of the artwork (echoing the style of Classics Illustrated) would sometimes be disrupted by chilling scenes of the atomic blast and its aftermath. In some ways, these stark visuals disturbed the informational tone of the comics, presenting

imagery more associated with science fiction or horror comics. This perhaps worked against the goals of the comics, which were designed to alleviate public anxiety, but they were part of the overall strategy, to use the levers associated with fantasy and entertainment to enliven the information being presented, making the comics more memorable and appealing.

In the 1960s, a number of comics appeared that dealt with social issues, notably Marvel Comics, which often tackled issues of social justice and prejudice using the superhero as a metaphor. In one instance, the federal government requested that Marvel's publisher, Stan Lee, introduce the theme of drug addiction. The story, which appeared in 1971, was rejected by the Comics Code Authority, but Lee published it anyway. Over the next decade, superheroes were often seen championing causes and often promoting health and safety campaigns (Figure 8). When Classics Illustrated stopped publishing for a time in the 1970s Marvel Comics launched their Classic Comics line to exploit this market. These comics made the kind of vibrant storytelling that readers had come to expect from Marvel. While they adapted many of the same titles as the Classics Illustrated line these were certainly designed to be more sensational and dynamic that Classic Illustrated. In 1978 Pendulum Press published *The Illustrated Format: An Effective Teaching Tool*. Pendulum was headed by David Oliphant and received funding from the US government in the 1970s to produce comics with a focus on education. They hired Vincent Fago, an experienced comics writer, artist and editor, to oversee the production of a series of comics adapting literary texts in a similar vein to Classics Illustrated, in what they terms the 'Now Age' illustrated series, which ran from 1973 to 1980. *The Illustrated Format: An Effective Teaching Tool* serves as a companion to that series, and featured a number of articles written by educators, editors at the Press, and Fago, and included 'field reports' that record the thoughts of teachers and distributors who have been involved with the supply of the comics and their use in the classroom and libraries. It is notable that the book does not refer to comics in the title, rather the medium is euphemistically referred to as 'the illustrated format', but it is clear from the content that the book is intended to serve as a report on the efficacy of comics in an educational context, most likely as a means of encouraging teachers to adopt the comics for use in the classroom. In defining

the difference between ‘comic art’ and the ‘illustrated format’ Fago observes that the use of a typeface, rather than hand lettered text, sets the Pendulum comics apart, as they are designed with ease of reading in mind, and paced so that expository text does not overwhelm the images (Oliphant, 1987: 22). The aim, apart from clear lettering, was to avoid overcrowded pages, and to leave sufficient time in the scripting of each comic for research, detail, and an emphasis on characterisation. In *The Illustrated Format* Fago presents a comparison between what they present as a typical comics page and a version of the same page presented in the illustrated format (Figure 9). Fago stresses the elegance of the composition, clarity of reading, quality of illustration, absence of sexualised characters, and attention to detail in the presentation of characters and setting. To a certain extent this was an attempt to decouple the creative process from the strictures of more commercially driven publishing, where deadlines and economical storytelling were key concerns, rather than the educational value of the comic. The effect of this was to allow for a consideration of the effect of the form and style of the comics in terms of their educational value, which was an important advance in the design and publishing of educational comics, and one that has perhaps not received the attention it deserves. Another important aspect of Pendulum’s efforts was the work they put into ensuring that the comics were appropriate for different reading levels, and the educational resources that they produced. The comics were often sold to schools as part of a ‘reading kit’, which included all the available comics as well as a poster and lesson plans. These black and white comics were mainly illustrated by Filipino artists such as Nestor Redondo and Alex Niño, and the artwork was of a high quality. Many of the comics were later reprinted by other publishers, including Marvel Comics in the mid-1970s, and several other publishers more recently, including a run by Saddleback Educational Publishing. Essays like ‘Using Visual Material in the Classroom’ by Linda Thornton, and ‘The Illustrated Format as a Motivational Tool’ by Marianne Curran, in *The Illustrated Format*, argue for the pedagogical value of Pendulum’s illustrated format in particular, rather than comics in general, but the findings are broadly in line with those expressed by the authors of the Journal of Educational Sociology’s special issue over three decades earlier. The educational experience is enlivened by the careful use of comics in educational settings, but more specifically, the form and style of the comics being created

is given particular attention. Moreover, Pendulum Press were not only producing a range of comics for educational purposes, they were publishing reports of the educational benefits of their methods.

In the 1980s, there was an increased focus on comics as a means of public information communication, but not just in terms of health and safety messages. Now superhero comics were tackling issues such as the sexual abuse of children and working with charities to address the famine in Africa, notably in Marvel's *Heroes for Hope* (1985) and DC's *Heroes against Hunger* (1986). Comics would also be employed to address healthcare issues such as AIDS, and in the United Kingdom in 1991, several comics creators and celebrities worked together to produce a charity comic, *The Comic Relief Comic* (Figure 10). DC Comics continued with a range of emotive and powerful comics tackling real word issues in the 1990s, with comics such as *Batman: Death of Innocents* (1996) by Dennis O'Neil and Joe Stanton, which addressed the problems of landmines in former war zones. These comics were hard hitting in their presentation of violence that marked them out from previous examples of information comics, which usually aimed for clarity in their visual style rather than anything that would disturb the reader, although this did recall the strategies of comics about Atomic war, where emotion, specifically fear, was an important aspect of the message. Comics adaptations from literature remain a very popular sub-genre, and adaptations of gothic horror such as *Frankenstein* and *Dracula* are commonplace, as are adaptations of science fiction classics. Plays by Shakespeare are also perennial favourites. In recent years anthologies such as the multivolume *The Graphic Canon* have appeared, presenting an array of adaptations from literature in a huge variety of styles. Manga versions of classics like *Moby Dick* and *The War of the Worlds* have appeared, and comics publishers worldwide continue to produce adaptations of literature in comics form, though since the 1980s adaptations of literary works have tended to adopt a more expressive visual mode, and only a few, such as those produced by Classical Comics since 2007, still explicitly present themselves as educational resources.

While the current focus is on American and British educational and public information comics, it is important to recognize that this is an international phenomenon. In Japan, educational comics have proven to be very popular and cover a vast range of topics, from publications that cover what might be considered traditional educational themes, educating readers about history or presenting adaptations from literature, but they also extend to instructional comics that provide tips on sports or address issues such as economics and social etiquette. Moreover, as Satsuki Murakami and Mio Bryce observe in 'Manga as an educational medium' (2009), Japanese comics also use the levers of entertainment to enliven educational messages.

> There are roughly two types of publications in the educational or informative manga genre. The first type is those which overtly utilise the educational merit of manga to enable readers to understand difficult topics easily. They were derived from the genre of gakushū manga (lit. learning manga) from the 1950s, which aimed to educate children by presenting difficult topics, such as history, geography, science, mathematics, and technology in manga form [.] The second type [is] manga published essentially as entertainment; however, they play an educational role in effectively delivering accurate information. (Murakami and Bryce 2009: 49-50).

Ishinomori Shōtaro's Shōtaro's *Japan Inc. An Introduction to Japanese Economics* (*The Comic Book)* (1986, published in English in 1988)was a best-selling business book in Japan because it visualized the relationship between the economic, legal and distribution systems operating in Japan in ways that made them easy to understand (Figure 11). The success of the book led to an English language edition published by the University of California Press and prompted a boom in educational manga directed at adult readers, much of it offering instruction on pastimes such as golf, fishing, cooking and gambling (Murakami and Bryce 2009).

Another way in which comics have been used to educate readers is through the presentation of historical, documentary or autobiographical accounts of real experience. Since the 1990s, there has been a huge rise in the number of such comics produced

worldwide, many of them influenced by Art Spiegelman's *Maus* (1986). Many autobiographical comics are educational in the sense that they give a voice to individuals whose experiences are underrepresented, and perhaps even suppressed, and deal with social justice and healthcare issues, including stigmatized conditions such as mental health, terminal disease and suicide, with examples including the work of Joe Sacco, Alison Bechdel and Marjane Satrapi (Chute 2016). Many such comics have found their way into university and college courses, as well as School libraries (Seelow 2019). These comics are usually highly stylized or may experiment with narrative structure and perspective. In such cases, style is often privileged over clarity, and such stories are regarded as having artistic and literary merit and the creators are seen as auteurs. These are educational not in the sense that they make a difficult topic easy to understand or present information in a precise, clear way, but rather that they employ literary structure and an artistic mode of presentation, making use of the form and aesthetics of comics in such a way as to challenge and inspire readers. This has been a truly global phenomenon. However, the more traditional mode of educational and instructional comics, whereby a publisher seeks to produce educational materials to support the curriculum, or a company or government agency commissions comics to present information to the public, persists.

The successor to Ater and Eisner's models of producing educational and informational comics for clients is Custom Comic Services, an American company that claims to be 'the nation's largest producer of educational and promotional comic books' and to have helped clients reach over 200 million readers since 1985. The company notes that its clients 'include corporations, national associations, educational foundations, trade groups and government agencies', and their website has testimonials from the National Safety Association, the Federal Government Safety Agency and the National Youth Education Society (Custom Comics Services 2020). In 2005, Scholastic, the world's largest publisher of books for children, launched a comics imprint, Graphix, founded by David Saylor, Janna Morishima and Sheila Keenan. Graphix went on to become a major publisher of graphic novels for children and teens and champions the use of comics in education. Indeed, Graphix has published a guide designed to show teachers how graphic

novels can fit into their curriculum and library collection. As is noted in the guide, part of the educational value of comics resides in their multimodal nature.

> Graphic novels inspire readers to understand and interpret information differently from how readers process prose. In a world where young people are growing up navigating narratives presented through websites, video games, television, films, and increasingly interactive media, learning and maintaining visual literacy is a necessary skill. (Brenner et al. 2015: 4)

The rise of comics studies as a distinct area of scholarly concern has coincided with the resurgence of interest in educational and information comics, and as such, there has been an increase in research activity in this area. There is a vast array of academic projects and networks worldwide with educational goals (such as Graphic Medicine, Graphic Justice, The Applied Comics Network and the Scottish Centre for Comics Studies) that produce educational comics that have been developed through research projects and public engagement work.

Scholarship on public information and educational comics

Over the last several decades, comics studies has emerged as a global interdisciplinary field of study, though not quite as a 'discipline' in itself, with all that entails. Comics studies stands between and across several other disciplines, including education. As Syma and Weiner argue, 'it is no longer a question of whether sequential art should be used in educational settings, but rather how to use it and for what purpose' (2013: 1). They note that comics provide four distinct educational advantages in the way they present information, namely, that comics can help people who are having reading problems learn to read more effectively, help improve grammar and increase vocabulary, can be an introduction to the reading of more sophisticated materials and the study of science and literature in general; and that they can be used to teach various attitudes and facts. Such observations are not new. As noted, the comics produced by M. C. Gaines and Malcolm Ater in the 1940s and 1950s were used in educational settings. In terms of scholarship, H. Lehmann and Paul A. Witty wrote an article on newspaper strips in *The*

Journal of Applied Psychology in 1927, and in 1937 R. C. Gay published 'A teacher reads the comics' in *Harvard Educational Review*, undertaking a survey of the vocabulary used in comics, with a particular emphasis on irregularities. R. L. Thorndike undertook a similar study in 1941, publishing 'Words and the comics' in the *Journal of Experimental Education*, exploring the range and difficulty of words employed in the comics. This influential study was very limited in scope, analysing just a handful of comics, but nevertheless, attention to comics by scholars and educators has a longer history than has been commonly supposed. While Wertham despaired of the use of comics in schools, there were scholars who championed the medium. The December 1944 Special Issue of *The Journal of Educational Sociology* (Vol. 18, No. 4), entitled 'The Comics as an Educational Medium' was entirely dedicated to work on comics and featured contributions from experts such as Harvey Zorbaugh (who also edited the volume), Hayden Weller, Sidonie Matsner Gruenberg, Josette Frank, Lauretta Bender, W. W. D. Sones and Paul A. Witty. The issue is remarkably pro-comics; however, it is not without its problems. As Bart Beaty points out in *Fredric Wertham and the Critique of Mass Culture* (2005), despite being one of the leading defenders of comics during the war years, and having written several articles that concluded that comics did no harm to young readers, Witty was not immune to the widespread view that it was inevitable and desirable that these readers should leave comics behind to move to 'proper' literature (1941: 109). Also, as Beaty notes, most of the academics featured in this issue were working on the advisory boards of comics publishers. This was paid work, meaning that they had a vested interest in supporting the comics industry. Nonetheless, the articles still illuminate the potential pedagogic value of comics at a time when comics were under attack, especially from North and Wertham.

Zorbaugh's editorial and article offered an explicit responded to North's criticisms of the medium,

> Cooler heads, more objective, point out that the comics deal with age-old themes [and] like folklore, the comics are an outgrowth of the social unconscious, and the problems of the relationship of the individual to his social world find expression through them. Their hold on their

> readers, child and adult, reveals that their appeal is deeply rooted in our emotional nature […] Certain it is that the comics have emerged as a major institution of our American culture. They are here to stay. We are but beginning to feel their social impact. Their potentialities as a social force are tremendous.
> (Zorbaugh 1944: 203)

Zorbaugh's main contribution to the 1944 issue is as a cheerleader for the comics industry, and he makes a call for more academic engagement with comics, though he mainly leaves this to his fellow authors. Likewise, Gruenberg, who noted that 'there is hardly a subject that does not lend itself to presentation through this medium' (Gruenberg 1944: 213), is chiefly concerned with presenting the degree of penetration of comics into American society, rather than accounting for why this is happening and what effects this may have. Josette Frank, the Staff Adviser to the Children's Book Committee of the Child Study Association of America and an advisor to DC Comics, makes some more useful observations in her article 'What's in the comics?' (1944), mainly reporting on the study undertaken by the Children's Book Committee. She notes that while teachers and librarians have worried that the reading of comics would deter children from reading books, there is, to the contrary, 'abundant evidence that many children who read comics also read books – often very good books [and that] Library circulation figures and book sales suggest increases in juvenile reading which hardly bear out [these] fears' (Frank 1944: 221). Fifty years later, Philip Crawford and Stephen Weiner echoed this argument, suggesting that graphic novels 'have become accepted by librarians and educators as mainstream literature for children and young adults – literature that powerfully motivates kids to read' (Crawford and Weiner 2005: 2). While Frank reported in 1944 that librarians had little to fear from comics, Crawford and Weiner observe that this fear, while still finding expression in some quarters in early part of the twenty first century, has largely been quashed.

W. W. D. Sones, Professor of Education and Director of Curriculum Study at the School of Education of the University of Pittsburgh, used his article to report on studies of the educational use of comics in the classroom. Like Frank, he was an advisor for DC Comics. In his article, 'The comics and instructional method', he notes that when

children created their own comics strips, they 'studied the narratives and the implications, and, finally, derived standards of quality and value' (Sones 1944: 235–36). Here was a practice research methodology deployed in the classroom, with the children making comics as a means of investigating how they worked. His key point was that young readers exercised discernment and intellect in their response to comics. Sones found that in a comparative study of groups where readers were given text supplemented by visual material in one group, and just text in another group, those children who read both text and images retained the information far better than those who had access to text alone (Sones 1944. Confirmation of these findings came in 2013 when Jeremy C. Short, Brandon Randolph-Seng and Aaron F. McKenny published 'Graphic presentation: An empirical examination of the graphic novel approach to communicate business concepts' in the journal *Business and Professional Communication Quarterly*. Their study demonstrated that college students retained information presented in the form of comics significantly better than they did information from a textbook. Indeed, much of the current work on comics and education looks at comics in the classroom, just as Sones did. Notable examples include Alissa Burger's edited collection, *Teaching Graphic Novels in the English Classroom: Pedagogical Possibilities of Multimodal Literacy Engagement* (2018) and David Seelow's collection *Lessons Drawn: Essays on the Pedagogy of Comics and Graphic Novels* (2019). Lars Wallner has published studies on how the creation of comics in the classroom can teach children about narrative and literary devices, a topic explored in his book *Framing Education: Doing Comics Literacy in the Classroom* (2017). A significant body of work on comics in educational settings has been produced by Sylvia Pantaleo, with a particular emphasis on how comics help develop visual literacy skills, and in *Graphic Encounters: Comics and the Sponsorship of Multimodal Literacy* (2013), Dale Jacobs argues that comics have the potential to develop the literacies of readers across a range of media. These studies have some connections to the type of work carried out by Sones and often reach similar conclusions about the mnemonic value of comics as a visual form and the ways in which comics can be used to interrogate assumptions and think about the principles of storytelling and communication.

Some of the most striking findings in the 1944 Special Issue came from Lauretta Bender, Senior Psychiatrist of the New York Department of Hospitals Psychiatric Division and Associate Professor of Psychiatry of the New York University College of Medicine. Bender was one of the first doctors to argue that conditions such as autism had a neurological basis rather than being the result of poor upbringing or education. She, along with Reginal S. Lourie, had written an article on the therapeutic uses of comics in 1941 and was, like Frank and Sones, employed by DC Comics as a medical consultant. In fact, she chaired their advisory board, and her stamp of approval appeared in DC Comics in the 1940s and 1950s. She also defended the comics industry against accusations that comics promoted juvenile delinquency as a witness in the 1954 Senate hearings, which had been prompted by criticisms of the industry by North and Wertham. Michel T. Gilbert, who refers to Bender as 'comics' anti-Wertham', notes that she and Wertham, both child psychologists, had worked at the same hospital, Bellevue Hospital in New York, at the same time (Gilbert 2009). Bender argues against North and the philosophy espoused by Hecht in his *True Comics* series, noting that '[c]hildren's fantasies are a constructive approach to reality, not an escape. Fantasy is a normal part of the development of the child's personality' (Bender 1944: 223). She suggests that comics feed the imagination but also allow children a space to explore their understanding of the world. Comics are, according to Bender, educational not just when they adopt educational, informational or factual themes, but by their very nature (an idea supported by Frank). Bender says, '[t]he absorption of children in the comics is easily understood when we regard it as a part of their constructive experimentation with reality and its problems' (Bender 1944: 223). More striking still is Bender's observation that when children tell stories, they do so in fragments. She connects this to how comics work, arguing,

> What of the comic as an art form? Children's spontaneous art work always appears to be incomplete; they seem to produce only in fragments when left to themselves and not urged by some adult to make a complete picture. Their art work is a projection of their inner fantasy life which is a vital, active, continuous process, never in itself complete. (Bender 1944: 229)

Bender takes this as an indication that children experiment with storytelling in comics and respond to the fragmented nature of the medium as a way of experimenting with their sense of self and understanding of the world. The stories they tell are never complete but are reworked and endlessly reconfigured. She argues that when children draw fragments of stories, the result is very much like a comic strip and that this process is an important part of psychological development. Addressing the concern that comics are often perceived to be badly written and detrimental to the acquisition of good literacy skills, Bender asserts that the words employed in comics, and their relationship to the images, offer a further space for experimentation and 'should not be expected to represent a model that the child will imitate, but an enormously fluid, fleeting, voluble substrata of play in language' (Bender 1944: 229). Bender's arguments about the power of comics are addressed to questions of child development, but the implications are important for all readers and echo the points made about the play and creativity inherent in reading comics that underpins the work of Scott McCloud in *Understanding Comics* (1993) and a vast range of subsequent comics scholarship. The key idea for Bender is that regardless of genre or content, comics are fundamentally, and formally, educational.

More recent work on comics often concentrates on the way they incorporate both words and images in their construction and the imaginative space that the form creates, allowing readers to engage in the story. While words can reinforce the meanings associated with images, and vice versa, their respective meanings can also diverge (Nabizadeh 2019). This 'interstitiality' between word and image generates narratives that can reflect the complexities and nuances that inform diverse topics. It is also notable that the pedagogic potential of comics owes much to the way the medium can immerse readers in comics story-worlds and use multiple forms of literacy (visual, spatial, numerical, verbal and textual) to construct meaning. This supports Bender's view that comics 'stimulate the child's fantasy life and so help him solve the individual and problems inherent in his living' (Bender 1944: 226). She adds,

> Great adaptability and fluidity in dealing with social and cultural problems, continuity through characters who deal with the individual's essential-psychological involvement with these problems, an

> experimental attitude and technique – these are the positive qualities of the comics.
> (Bender 1944: 231)

Surveys of comics and their readers were also underway in Britain in the 1940s and 1950s. Geoffrey Trease's *Tales Out of School: A Survey of Children's Fiction* (1949) devotes a lively chapter to comics, finding that the comics offer thrilling diversions to children and adults, but little in the way of artistic or literary merit. They are deemed to be mostly harmless, but less satisfying that literature, although Trease's work does not evidence much in the way of a methodology. The Scottish Council for Research in Education published *Studies in Reading* in 1948, which featured a chapter called 'Six- and seven-year-old Children's acquaintance with the vocabulary of comics' by Sister Jude. This work summarized the findings of British and American research on comics from an educational perspective, situated this in the context of wider studies on the reading habits of children. Sister Jude's well-informed study explored the vocabulary employed by British comics, finding values for the types of speech, the use of slang and various other factors. She concludes that in terms of encouraging the development of the child's vocabulary, the comics do better than the resources typically employed by educators, such as infant readers (Sister Jude 1948: 188). She continues,

> These conclusions are contrary to popular opinion. Hitherto, it has been supposed that the content of comics was something very far removed from 'education', something on an entirely different plane-in fact, a form of regression. This study has disproved these assumptions so far as vocabulary is concerned.
> (Sister Jude 1948: 190)

However, as in America, the use of comics in educational settings, and their serious study by academics and educators, ran in parallel to, and perhaps even provoked, a strong conservative reaction. Whereas America had Wertham and the Senate hearings, Britain had the Comics Campaign Council. This was a self-appointed interest group set up in 1953 and led by the paediatrician and Communist party member Dr Simon Yudkin. Following an exhibition organized by the National Union of Teachers to demonstrate the harmful effects of American-style horror comics, representations to Prime Minister

Winston Churchill in 1954 from the Education Institute of Scotland, the Glasgow Corporation and the Church of England Council for Education urged him to act. The resulting legislation, The Children and Young Persons (Harmful Publications) Act 1955, restricted the importation and sale of such comics. The public disquiet about the influence of comics was fed by a number of publications, from George H. Pumphrey's *Children's Comics: A Guide for Parents and Educators* (1955) to *British Comics: An Appraisal*, edited by P. M. Pickard (1955). Pumphrey, a teacher, reflects the anxiety about American comics lowering moral and educational standards but also singles out Classics Illustrated as being particularly 'pernicious' as these are hardly the form in which most parents would want their children to first encounter great literature (Pumphrey 1955: 63). The appraisal of British comics offered by the committee led by Pickard grants that there are some good comics but also many harmful ones and suggests that a logo of an owl reading a book might be placed on covers of the good comics so that parents and educators can make informed decisions. The conservative and censorious spirit of these debates about comics in both Britain and America came in the content of academic work that often provided clear evidence that comics were not harmful and that they had the power to educate and inform. This was ignored largely because there were other forces at work. The Senate hearings in America were in keeping with the McCarthy hearings that gripped Hollywood in a state of fear. The professed target was Communist infiltration of American society, but suspicions are that the real target was liberalism. Similarly, many E. C. Comics stories, which bore the brunt of the attacks in the hearings, were anti-war and presented thoughtful critiques of American society. In Britain, the real horror was the idea that American popular culture was contaminating British culture. A sniffy distain for vulgar Americanisms entering into British speech and popular culture can be detected in much of the work presented by Pumphrey and Pickard. This came in the context of post-war Britain struggling to adjust to a world where despite victory it was economically crippled and its grip on its colonies was slipping. Barrelling towards the Suez crisis, Britain was overshadowed by America, its former colony, now a superpower. These anxieties spilled out in various ways and certainly through the Comics Campaign. This perhaps also explains why, for all the bluster, the American anti-Comics Campaign did not result in restrictive legislation while the British one did. The anxiety about comics

promoting juvenile delinquency prompted by anti-American factions was based on nothing. The anxiety that American comics were exerting a considerable influence on British comics readers was at least true, even if the evidence that this was harmful was less than reliable. The notion that American comics were influencing British youth was deeply troubling to many parents and educators, but the idea that comics could be educational, or used in educational settings, as was becoming commonplace in America, was intolerable.

It is clear that the scholarship on comics that appeared in the 1940s and 1950s was not without its problems, both in terms of methodologies and transparency. The comic book industry was embattled and those producing work in defense of comics were, in the United States at least, also often on the payroll of the comics publishers. However, the research that evidenced some rigor (Bender, Sones, Witty and Sister Jude) is still valuable in many respects. While Wertham decried *the Journal of Educational Sociology*'*s* Special Issue on comics as an 'an all-time low in American science' (Wright 2001: 162), looking back on these articles, it is striking that some of the academics and educators featured here were not only taking comics seriously, and thinking about the efficacy of the medium in educational settings, but are in some respects surprisingly close to current thinking on how comics operate and how they can be applied in educational contexts. Zorbaugh, Gruenberg and Frank were astute in arguing for the potential of the medium, answering some of its most vocal critics and forecasting that the medium not only had staying power but would grow and mature, even if their contributions added little in terms of research. Bender and Sones made the most substantial contributions and were actually conducting fieldwork in schools and conducting workshops in which children created and talked about how comics worked. In Britain, there were academic studies of comics that suggested that they were educationally valuable, but this was drowned out by anxiety about falling standards and creeping American influence. But perhaps there is a lesson here. The fact that comics studies has taken so long to coalesce as a field of study has meant that while work on comics was appearing in areas like education, psychology and sociology, this was somewhat obscured as comics studies developed by fits and starts over several decades and across a number of disciplines, and

through a fog of political wrangling and social anxiety. Comics studies started to gain traction in Literature Departments and Art Colleges in the 1970s and 1980s, although that term was not widely used, and there was a renewed interest in the educational potential of comics. The emergence of what would become comics studies at this time, in the 1970s and 1980s, was propelled by the 'cultural turn' and a very different political climate and attitude towards education, and comics; however, the work on comics by an earlier generation of scholars from other disciplines was not immediately visible to scholars working on comics at that time. For example, there is no evidence that the authors of *The Illustrated Format* had any awareness of the research on comics that had appeared in the early to mid-1940s. So, while the interdisciplinary nature of comics studies may be described as a strength overall, much still has to be done to recuperate the history of research on comics, particularly regarding the value of comics as a mode of education and instruction.

Conclusion

This article has examined the potential of comics as educational and informational tools through an exploration of the history of such comics, mainly in America, but with some acknowledgement that this was a global phenomenon. It has also investigated the scholarship that has emerged in response to such comics. While the rich interdisciplinary culture of comics studies means that there is no one agreed definition of how comics operate, much academic work proceeds from the idea that comics is not a simple, unsophisticated medium but rather requires a high degree of interaction and imaginative input from the reader. At the level of content and of form comics pose problems. They are, in other words, dialogical. Comics are a puzzle, and they encourage multimodal problem-solving skills. They offer, in Bender's terms, a means to engage with in 'constructive experimentation with reality and its problems', allowing the reader to enter into a dialogue with the text, with the world and with themselves in a unique way. The complex and nuanced construction of comics place a creative burden on readers as they bring a range of visual-verbal references and associations to support their interpretation of the text. The textural qualities of comics, their particular aesthetic and verbal strategies

through which stories are conveyed, embed and articulate a pedagogical mission within the panels and pages. The potential to create empathy for others is one of the great educative potentials of any art form, and the medium of comics offers the possibility of imaginative, intellectual and emotional engagement through its formal and narrative attributes. Comics can also present complex information that is otherwise difficult to represent or access. Taken together, these are powerful tools in terms of education and instruction. Making and reading comics is inherently a learning experience. For these reasons, the application of the medium of comics to educational purposes is not an oddity or an aberration, but rather a natural extension of their capabilities and something that has been explored by the likes of Educational Comics, Gilberton, Pendulum Press and various others. The notion that comics are for children has associated the medium with a range of concerns, anxieties and prescriptive and conservative notions about childhood. This is underpinned by an implicit understanding that comics are a powerful and effective means of communication, and therefore, education, and an explicit fear that comics might be used for exactly this purpose. While many of these anxieties about comics persist, a growing body of comics scholarship, echoing a previous phase of comics scholarship from the 1940s and 1950s, and in the 1970s, is presenting evidence of the educational efficacy and power of the comics medium. The task is also to reconstruct a history of comics studies that acknowledges the long history of research into educational and information comics.

References

Ater, Malcolm (ed.) (1951), *If an A-Bomb Falls*, Delaware: Commercial Comics, Inc, created for the State of Delaware, Department of Civil Defense.

Barker, Martin (1992), *A Haunt of Fears: The Strange History of the British Horror Comics Campaign*, Jackson, MS: University Press of Mississippi.

Beaty, Bart (2005), *Fredric Wertham and the Critique of Mass Culture*, Jackson, MS: University Press of Mississippi.

Bender, Lauretta and Lourie, Reginal S. (1941), 'The effect of comic books on the ideology of children', *The American Journal of Orthopsychiatry*, 11:3, pp. 540–50.

——— (1944), ‘The psychology of children’s reading and the comics’, *The Journal of Educational Sociology*, special issue: ‘The Comics as an Educational Medium’, 18:4, pp. 223–31.

Brenner, Robin, Crawford, Philip and Weiner, Stephen (2015), *Guide to Using Graphic Novels with Children and Teens* (Scholastic).

http://www.scholastic.com/graphix_teacher/pdf/Graphix%20Teachers%20guide.pdf. Accessed 4th June 2020

Burger, Alissa (ed.) (2018), *Teaching Graphic Novels in the English Classroom: Pedagogical Possibilities of Multimodal Literacy Engagement*, New York: Palgrave MacMillan.

Campbell, Eddie (2011), ‘A PS briefing’, in Kochman, Charles (ed.), *PS Magazine: The Best of the Preventive Maintenance Monthly*, New York: Abrams ComicArt.

Chute, Hillary L. (2016), *Disaster Drawn: Visual Witness, Comics, and Documentary Form*, Cambridge, MA: Harvard University Press.

Crawford Philip, and Weiner, Stephen (2005), *Using Graphic Novels in the Classroom: A Guide for Teachers and Librarians*, New York: Scholastic.

Custom Comics Services (2020), ‘Educational and promotional comic books’, http://www.customcomicservices.com/index.html. Accessed 4th June 2020.

Eisner, Will (1985), *Comics and Sequential Art*, Tamarac, FL: Poorhouse Press.

Frank, Josette (1944), ‘What’s in the comics?’, *The Journal of Educational Sociology*, special issue: ‘The Comics as an Educational Medium’, 18:4, pp. 214–22.

Gay, Roger. C. (1937), ‘A teacher reads the comics’, *Harvard Educational Review* 7, pp. 198–209.

Gilbert, Michael T. (2009), ‘Dr Lauretta Bender: Comics’ Anti-Wertham’, Parts 1–3, *Alter Ego* #87, 88 and 91, Raleigh, NC: Twomorrows Publishing.

Graham, Richard L. (2011), *Government Issue: Comics for the People, 1940s–2000s*, New York: Abrams Comicarts.

Gruenberg, Sidonie Matsner (1944), ‘The comics as a social force’, *The Journal of Educational Sociology*, special issue: ‘The Comics as an Educational Medium’, 18:4, pp. 204–13.

Heer, Jeet and Worcester, Kent (eds) (2005), *Arguing Comics: Literary Masters on a Popular Medium*, Jackson, MS: University Press of Mississippi.

Jacobs, Dale (2013), *Graphic Encounters: Comics and the Sponsorship of Multimodal Literacy*, New York and London: Bloomsbury Publishing.

Jones Jr., William B. (2011), *Classics Illustrated: A Cultural History*, 2nd ed., Jefferson, MO: McFarland and Company Inc.

Jungst, Heike Elisabeth (2010), *Information Comics: Knowledge Transfer in a Popular Format*, Frankfurt: Peter Lang.

McCloud, Scott (1993), *Understanding Comics: The Invisible Art*, Northampton, MA: Kitchen Sink Press.

McLuhan, Marshall (1964), *Understanding Media: The Extensions of Man*, New York: McGraw-Hill.

Mickwitz, Nina (2016*), Documentary Comics: Graphic Truth-Telling in a Skeptical Age*, New York: Palgrave MacMillan.

Murakami, Satsuki and Bryce, Mio (2009), 'Manga as an educational medium', *The International Journal of the Humanities*, 7:10, pp.47-55.

Murray, Christopher (2010), *Champions of the Oppressed: Superhero Comics, Propaganda and Popular Culture in America during World War Two*, Cresskill, NJ: Hampton Press.

——— (2017), *The British Superhero*, Jackson, MS: University Press of Mississippi.

Nabizadeh, Golnar (2019), *Representation and Memory in Graphic Novels*, New York and London: Routledge.

Oliphant, David (ed.) (1978), *The Illustrated Format: An Effective Teaching Tool*, West Haven, CT: Pendulum Press.

O'Neil, Dennis and Staton, Joe (1996), *Batman: Death of Innocents*, New York, DC Comics.

Pickard, Phyllis M. (ed.) (1955), *British Comics: An Appraisal*, London: Comics Campaign Council.

Pumphrey, George H. (1955), *Children's Comics: A Guide for Parents and Teachers*, London: The Epworth Press.

Rifas, Leonard (2010), 'Educational comics', in M. Keith Booker (ed.), *Encyclopedia of Comic Books and Graphic Novels*, Vol. 2, Santa Barbara, CA: Greenwood, pp. 160–69.

Seelow, David (ed.) (2019), *Lessons Drawn: Essays on the Pedagogy of Comics and Graphic Novels*, Jefferson, MO: McFarland and Company Inc.

Shōtaro, Ishinomori (1986, published in English in 1988), *Japan Inc. An Introduction to Japanese Economics (The Comic Book)*, Berkeley: University of California Press.

Sister Jude (1948), ‘Six- and seven-year-old children’s acquaintance with the vocabulary of comics’, in *Studies in Reading*, Vol. 1 The Scottish Council for Research in Education, London: University of London Press, pp. 173–212.

Sones, W. W. D. (1944), ‘The comics and instructional method’, *The Journal of Educational Sociology*, special issue: ‘The Comics as an Educational Medium’, 18:4, pp. 232–40.

Sorene, Paul (2016), ‘Madonna’s AIDS comic given to fans at a 1987 concert’, 9 August, Flashbak https://flashbak.com/madonnas-aids-comic-given-to-fans-at-a-1987-concert-362512/. Accessed 3rd June 2020.

Spiegelman, Art (1991), *Maus*, New York: Panetheon Books.

Starlin, Jim and Wrightson, Bernie (ed.) (1985), *Heroes for Hope*, New York: Marvel Comics.

——— (1986), *Heroes Against Hunger*, New York, DC Comics.

Syma, Carrye Kay and Weiner, Robert G. (eds) (2013), *Graphic Novels and Comics in the Classroom: Essays on the Educational Power of Sequential Art*, Jefferson, MO: McFarland and Company Inc.

Tabachnick, Stephen E. and Saltzman, Esther Bendit (2015), *Drawn from the Classics: Essays on Graphic Adaption of Literary Works*, Jefferson, MO: McFarland and Company Inc.

Thorndike, Robert L. (1941), ‘Words and the comics’, *Journal of Experimental Education* 10, pp. 110–13.

Tilley, Carol L. and Weiner, Robert G. (2017), ‘Teaching and learning with comics’, in F. Bramlett, R. T. Cook and A. Meskin (eds), *The Routledge Companion to Comics*, New York and London: Routledge, pp. 358–66.

Trease, Geoffrey (1949), *Tales Out of School: A Survey of Children’s Fiction*, London: Heinemann Educational Books Ltd.

Wallner, Lars (2017), ‘Speak of the bubble – Constructing comic book bubbles as literary devices in a primary school classroom’, *Journal of Graphic Novels and Comics*, 8:2, pp. 173–92.

——— (2019), ‘Gutter talk: Co-constructing narratives using comics in the classroom’, *Scandinavian Journal of Educational Research*, 63:6, pp. 819–38.

Witty, Paul A. (1941a), ‘Children’s interest in reading the comics’, *The Journal of Experimental Education*, 10:2, pp. 100–04.

——— (1941b), ‘Reading the comics – A comparative study’, *The Journal of Experimental Education*, 10:2, pp. 105–09.

Wright, Bradford W. (2001), *Comic Book Nation: The Transformation of Youth Culture in America*, Baltimore, MD: John Hopkins University Press.

Zorbaugh, Harvey (1944), 'The comics – There they stand!', *The Journal of Educational Sociology*, special issue: 'The Comics as an Educational Medium', 18:4, pp. 196–203.